



## Nature Study Idea for Today's Schools

BY WALTER THURBER

Anne keeps the nature diary for the fifth grade, a responsibility she accepts eagerly. But for all her interest in her nature work, she dislikes her science lessons. "We just read and talk about it," she explains.

Science as a school subject is plagued by its dictionary definition, "A body of facts and laws based on observation and arranged in a logical system." Teachers are apt to assume from this definition that they should make pupils memorize as many of these facts and laws as time permits.

This tendency seems to have been as serious in 1890 as in 1950, because the pioneers in the Nature Study movement wanted a term free of such connotations. They chose "Nature Study," a term that implies an active process rather than an inert mass of information.

These pioneers believed that what happened to a child as he learned something was as important as what he learned. Liberty Hyde Bailey wrote, "Nature Study is not the teaching of facts merely for the sake of facts: its purpose is to develop certain intellectual powers by the use of materials." He thought of subject matter as a means to an end, not an end in itself.

This philosophy of education is as badly needed in today's schools as in those of Bailey's time. Too few boys and girls are discovering and developing their science talents. Far too many are finding only boredom and dissatisfaction in the science program. This is as true in the junior and senior high schools as in the elementary schools.

The nature study philosophy is easily applied to any science, physics as well as elementary school science. The content of the course should be selected in terms of its potentiality for helping pupils grow rather than because it fits some traditional pattern of logical organization. The material should be selected from situations in which the pupils can gain first-hand experiences. The course should be flexible to take advantage of new situations and new interests on the part of the pupils. Pupils should be encouraged to work alone and in small groups. And

(1) Bailey, L.H.: "The Nature Study Idea." The Macmillan Co., New York, 1909.

most, important, pupils should not be held to uniform outcomes.

Under the nature study philosophy there is a place for every pupil. There are opportunities for superior readers, for those with artistic talents, and for those with mechanical skills. Each pupil is encouraged to explore his own abilities to discover his strengths, and to make his contributions in his own way.

Learnings are not neglected under the nature study philosophy. True, not all pupils learn the same things, but our schools should not attempt to put out a uniform product. The learnings that are acquired, being based on real, challenging situations are much more nearly indelible than learnings based on reading, talking, and artificial laboratory experiences.

But the truly important outcomes of a program built on the nature study philosophy are not learnings. Pupils maintain and increase their natural interest in the things about them. They gain an understanding of some of their strengths and limitations. They discover that they can make worthwhile contributions and they gain self-respect. They have increased experience in working with each other and in adapting themselves to the group. They find out how to approach everyday problems. In brief, pupils have a chance to grow. We can ask no more important outcome of any programs.

## American Nature Study Society Meeting

NEW YORK, DECEMBER, 1956

The program plans are getting underway for the New York City meetings. The officers are anxious to include presentations by some of the ANSS members.

Would you send to the Program Chairman any suggestions you may have of topics you would like to see discussed, presentations you could make, or people you know who have something interesting to report on?

Richard L. Weaver, our vice-president, is serving as program chairman for this meeting, and Charles Mohr of Greenwich, Connecticut, and Ted Pettit of New Brunswick, New Jersey are acting as co-chairmen of the local committee on arrangements.

Send your suggestions to Dick Weaver, School of Natural Resources, University of Michigan, Ann Arbor, Michigan.

## Natural Areas for Schools

The Nature Conservancy is forming a national committee to help promote relatively natural areas for schools. While many schools do have access to bits of rural landscape for class work, many others have only paved yards for outdoor teaching. Even new suburban and rural schools usually have lost almost all of the natural resources of their property by "destructive construction" — sometimes needlessly.

## Soil Stewardship Week

Soil Stewardship Sunday has been set for May 15, 1956 by the National Association of Soil Conservation Districts. Throughout the nation religious groups will hear a review of the truth that mankind is not owner, but a custodian of the earth, and as such he must see that it is properly cared for. During the week following, many schools are holding programs studying the part that many can play as stewards of a great resource.

## AMERICAN NATURE STUDY SOCIETY NEWS LETTER

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## Welcome to New Members

A warm welcome is extended to a number of new members of the American Nature Study Society. Each one of these persons is a leader in nature study in his own community, and his work will go a long way toward promoting a better understanding of the world of nature.

Your editor has not been infallible. He would greatly enjoy hearing from you of any omitted or wrong names and addresses.

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## Duties of ANSS Officers

At the meetings of the Executive Committee of the ANSS in Atlanta, it was decided to give the responsibility for preparing the program for the Annual Meeting to the vice-president. For the meetings in New York in December an excellent program is assured when we know that the vice-president is Richard Weaver of the University of Michigan Department of Conservation.

Malvina Trussell, the president, is using this freedom from program preparation to promote a membership drive and to keep a more personal contact with the present members. In addition, the president will be responsible for contacting the members of the executive committee for setting up the agenda for the annual business meeting. She will welcome any suggestions for making the society a more active force in promoting nature study and conservation.

Our secretary, Helen Ross, has plenty to keep her occupied in spare time. Many questions come in the mail regarding the status of memberships, non receipt of the NEWSLETTER or of one of the three publications — *Canadian Nature*, *Cornell Leaflet* or the *Nature Magazine*. These need answers, and since the secretary keeps a roster of the membership, she is responsible for mailing out the NEWSLETTER. During the annual meeting the secretary keeps the minutes of the meetings. The mailing out of the slate of officers and the reporting of the results of the voting are also the responsibility of the secretary.

One of the most thankless jobs, yet a very vital one, is that of the treasurer. Howard Weaver of the University of Illinois has been elected to that position. As dues for memberships come in, he makes out lists for the particular magazines subscribed to and mails these to the business manager of the magazines concerned. Likewise copies of these lists are sent to the secretary who records them on the official roster. The secretary in turn notifies one of the welcoming committee of the new members. Members of this committee write a letter of welcome to the new member. A copy of the above list of members from the treasurer also goes to the editor who will publish names of new members.

The treasurer likewise pays all bills approved by the executive committee.

Florida State University will hold its 4th Annual Science Camp at Tallahassee for high school seniors. This has been a very successful venture.

## Western Section Meets

The Western Section of the American Nature Study Society will hold its next meeting in connection with the summer meeting of the AAAS, Pacific Division, at Seattle, Washington, June 12 to June 14. An excellent program is being prepared. There will be presentation of papers beginning Tuesday afternoon. An interesting field trip has been planned for Thursday and the highlight of the year will be the annual dinner that evening. A large turnout of western members and some from the east is expected.

The officers of the Western Section are President Roland Case Ross, Los Angeles State College, Vice-President Irene Hollenbeck, Oregon State Teachers College, and Secretary-Treasurer P. Victor Peterson, Jr., Los Angeles State College.

## Indiana Conservation Education Camp for Teachers

The eleventh annual Conservation Education Camp for Teachers will be held at Versailles State Park, Versailles, Indiana, June 18 - July 28, 1956. The course offers three or six semester hours of university credit and is available to any student with two years of college training.

The course is primarily a field course, emphasizing the problems of managing our renewable natural resources.

Further information concerning the course which is administered by Purdue University may be obtained from H. H. Michaud, Associate Professor of Conservation, Purdue University, Lafayette, Indiana.

## FWOC Holds Meeting

There were 40 clubs represented at the meeting of the FEDERATION OF WESTERN OUTDOOR CLUBS held on January 19 at the Mountaineers Home in West Covina, California. This federation is one with a program of action to preserve our natural resources so that the greatest good for the greatest number may be had from them. One of the most important items on the agenda was the report on conservation activities. A most notable victory was the reaffirmation of congressmen of the 1916 National Park Act which had been jeopardized by proposed economic invasions of dedicated lands — parks, monuments, and refuges. One example of this was the withdrawal of the proposed dam in Dinosaur National Monument because of the great public sentiment against it.

One of the most active western members in this federation is Dr. Walter P. Taylor, a staunch supporter of the ANSS.

## Snow is Featured

The January number of the KANSAS NATURALIST published by Kansas State Teachers College at Emporia featured SNOW which is of great interest in the middle of winter. The many forms of snow, the great variety of snowflakes, the shelter snow gives to plants against freezing, and as a cover for birds during extremely cold spells are well treated. Dr. John Bruckelman, president-elect of the National Association of Biology Teachers is the editor of this journal which is published quarterly.

## Palmer Addresses Western Conservation Groups

Dr. E. Laurence Palmer recently stumped the western part of the United States in the name of conservation where he talked to sportsmen's and teachers' groups. Following a series of almost daily talks between plane flights, train and bus trips for several weeks, he made his way down into western Mexico where he made a fine collection of marine shells. Dr. Palmer who has been responsible for a large number of Nature Study leaders developed at Cornell before his retirement, is at present Conservation Education Director of the National Wildlife Federation, Education Director of the American Nature Association, a Director of the reorganized Laboratory of Ornithology at Cornell University and AAAS representative for the ANSS.

## CEA Publishes Selected References

The Conservation Education Association has published "Selected References on Conservation Education for Teachers and Pupils." This eighteen page publication makes no claim to completeness but has listed pamphlets selected for factual accuracy and educational stability. This publication may be obtained from the Conservation Education Association, Eastern Montana College of Education, Billings, Montana, for 15 cents.

## Visit Nelson Ledges

Lincoln Pettit of Hiram College, Ohio, sends us a fine illustrated booklet, "Nelson Ledges, a Visitor's Guide" which is a treasure store of information about a geological and biological paradise. Geologically, Dr. Pettit says, the gigantic blocks in this area suggests to some people a terrible roaring catastrophic earthquake with fragments tossed about like a handful of peas. Others may imagine that fire and clouds of sulfurous smoke accompanied an upheaval of the earth. Few are prepared for the almost gentle story of Nelson Ledges, a story only occasionally violent and one which fashions its drama and wondrousness from slow, incessant, small activities spread out over long ages of time.

This pamphlet is wonderfully written and creates desire to get out of doors to examine the local scene. Commonplace sights when correctly interpreted add greatly to one's enjoyment of an area, and Dr. Pettit has certainly done some lucid interpretation for Nelson Ledges.

## CHANGED ADDRESSES

Members of the ANSS are no exceptions when it comes to making changes for better jobs or better homes. The following changes in addresses are noted and in the future we would appreciate having other changes brought to the attention of the Editor. It would also save time and prevent loss of magazines to notify the mailing department of the magazines direct. It takes time to make changes where thousands of names are involved. We hope that the following changes are correct.

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## Vacation in Beautiful Utah

The Institute of Biology to be held at the University of Utah from July 9 to August 10 will aid high school and college biology teachers who are not now teaching in, or near, an institution which offers graduate work in the biological sciences. Stipends of \$250 and dependency allowance have been made available for 25 high school and 25 college teachers in biology by the National Science Foundation. The theme will be "basic modern concepts in the biological sciences." The staff will consist of nine outstanding biologists among whom are Dr. George Beadle, Genetics, California Institute of Technology; Dr. Arthur W. Ga'ston, Cell Physiology, Yale University; and Dr. Karl P. Schmidt, Zoogeography, Museum of Natural History, Chicago. In addition there will be several science teaching specialists who will correlate the modern developments in biology with the classroom teaching situation. Graduate credit up to six quarter hours may be earned.

Dr. Loren C. Petry, Visiting Professor in Botany, University of Missouri, is Director of the Institute.

For further information and application blanks, write to Dr. Stanley B. Mulaik, Associate Director, Institute in Biology, University of Utah, Salt Lake City 12, Utah.

## Letter from the Isles

*The following is part of a letter written to the editor by Helen Ross, Secretary of the A.N.S.S. during her summer's visit to the British Isles.*

Dear Stan:

My early reaction to writing a report on the British Isles was a negative one, but I had underestimated the land to which I was going and the attractions which its out-of-doors offered. Like the Scotsman who visited the United States said, so I must say, "We are so wonderfully alike."

To someone like myself who probably knows more about weeds than any other biological division, the roadsides and field borders represent familiar territory. Walking along the Ulster and Scottish roadsides, I found dandelion, burdock, curly dock, sheep sorrell, red clover, black medic, heal all, mouse-eared chickweed, and English daisy. Grain fields were often yellow with mustard blooms or buttercups. Of course this similarity of weeds was not surprising since we imported most of our crop seeds from that area with which came the weed.

The Edinburgh region of Scotland is

a beautiful spot with profusely blooming gardens meticulously cared for. Every cottage, large or small had bright green lawns, bright flower borders and neat rows of vegetables in the rear.

I spent three days in a naturalist's paradise, a small sea-coast town in County Donegal in the Free State. The town was surrounded by fresh water lakes and peat bogs. Nearby were easily accessible mountains. The first day I went lake fishing with two vacationing Irishmen and returned with eight salmon trout which the Inn Keeper graciously fried for our breakfast. The first fish jumped just at sunset — 10:00 p.m. — but none took the hook until 10:30. At 11:00 we were rowing in with our catch, disturbing the nesting terns on the shores and chasing the swans and cygnets ahead of us in the twilight.

The next day four of us climbed Muckish Mountain where the peat bogs extended up to the granite cliffs from which quartz is quarried. The peat bogs were just as unfamiliar to me as the roadsides had been familiar. Heather, I learned, was not confined to Scotland, and that day we located six kinds. There were dozens of other blooms, tiny plants with brilliant snow flowers. Rabbits which are at present a problem to Ireland scurried out of our way as we climbed along.

The turf diggers used donkeys and horses and sometimes their own backs. The farmers did the same. It was a busy time for the hay was ready to be harvested and turf must be cut during the dry weeks. In that area turf was cut only for

domestic use and a wet summer like the last one creates a hardship for it means insufficient winter fuel. The turf is cut in blocks a little larger than an ordinary brick and dried in the sun.

Farther south in the great peat area of central Ireland turf is dug commercially and used at least by one plant in the production of electricity. Some freight engines use peat, but they have to stop frequently to reload fuel. One scientist estimated that there is enough turf available in Ireland to last a thousand years even with greatly stepped up use. Large areas have been virtually untouched.

The countryside around Dublin was very different with palms and yuccas flourishing there. At London I visited Glyn House and was served tea under a huge Cedar of Lebanon. The lecture I was supposed to attend here was forgotten when I found the "lady-gardener." I wandered with her among the English elms with 30 feet of girth on one, the Sequoias' twenty feet high, English Holly tree's blooming, chestnuts, an old four feet high metasequoia planted as a seedling four years ago.

These islands are beautiful, familiar yet unfamiliar — a country that could understandingly produce an Isaac Walton, a Gilbert White, and a Richard Jefferies. It is a country where I can ask almost any traveling companion in a third class rail coach, "What is that?" as I pass a common thing which is new to my eyes and obtain an answer. It's a land I wish to go back to.

## NOTICE

Membership in the American Nature Study Society includes a membership card, a quarterly NEWSLETTER and the following types of enrollment:

- Group I — \$2.00 Cornell Leaflet
- Group II — \$3.00 Canadian Nature
- Group III — \$4.00 Nature Magazine
- Group IV — \$4.00 Canadian Nature and Cornell Leaflet
- Group V — \$5.00 Nature Magazine and Cornell Leaflet
- Group VI — \$6.00 Nature Magazine and Canadian Nature
- Group VII — \$7.00 Nat. Mag., Canadian Nature, and Cornell Leaflet

Magazines under group VII subscribed to separately would cost \$9.00. Send application and payment to:

Dr. Howard E. Weaver, 202 Men's Old Gym, Urbana, Illinois

AMERICAN NATURE STUDY SOCIETY  
State Teachers College, Fitchburg, Mass.

Sec. 34.65 (e) P. L. & R.

